

GGGGGGGGGGGGGGTCAGAGGGAGCTTTCTTTTAGGCCCCGTCCATCTGTGAAT  
 CTAACCTCAGTTTCTGGGAATCAGGAAGCATGCATCTCCTCTTAGTTCAGCTG  
 CTTGTTCTCTTGCCCTCTGGGGAAGGCAGACCTATGTGTGGATGGCTGCCAGAG  
 TCAGGGCTCTTTATCCTTTCCTCTCCTAGAAAGGGGTCTGCAGAGATCTCCACG  
 TGGCCAACCACGAGGAGGCAGAAGACAAGCCGGATCTGTTTGTGGCCGTGCCA  
 CACCTCATGGGCACCAGCCTGGCTGGGGAAGGCCAGAGGCAGAGAGGGAAGAT  
 GCTGTCCAGGCTTGGAAGATTCTGGAAGAAACCTGAGACCGAATTTTACCCCC  
 CAAGGGATGTGGAAAGCGATCATGTCTCATCGGGGATGCAGGCCGTGACTCAG  
 CCAGCAGATGGGAGGAAAGTGGAGAGATCACCTCTACAGGAGGAAGCCAAGAG  
 GTTCTGGCATCGGTTTCATGTTTCAGAAAGGGCCCCGGCGTTCCAGGGAGTCATCC  
 TGCCCCATCAAAAGCCACGAAGTACACTGGGAGACCTGCAGGACTGTGCCCTTC  
 AACCAGACCATTGCCCCATGAAGACTGTCAAAAAGTCGTTGTCCAGAACCAACCT  
 TTGCTTTGGCAAATGCAGTTCATTTCGTTTTCCCGGAGAAGGGGCAGATGCCC  
 ACAGCTTCTGCTCCCACTGCTCGCCCCACCAAATTCACCACCGTGCACCTTGATG  
 CTGAAGTGCACCAGCCCCAACCCCCGTGGTCAAGATGGTGTATGCAAGTAGAAGA  
 GTGTCAGTGCATGGTGAAGACGGAACGTGGAGAGGAGCGCCTCCTACTGGCTG  
 GTTCCCAGGGTTCCTTCATCCCTGGACTTCCAGCTTCAAAAACAAACCCATGA  
 ATTACCTCAACAGAAAGCAAACCTCAACAGAATAAGTGAGGGTTATTCAATC  
 TGGAAATGTTATGTGAGTTATATAAAGATCAGTGGAAAATATCTTTCTCTCTC  
 CCTCTCTCCCCCTCTCTCTTCTCTCTATTTTCTCTCTCTCTCTCTCTCTCT  
 CTCTCTCTCTCTCTCTCTCACACACACACACACACACACACACACACACAT  
 GTTTGTGTTTAGACAGGGTCTTATGTATTCTCAGCTGGCCTCAAACCTCACAAT  
 GTGGCTGGGGATGATTTTAAACTCCTGATCCAATTCCTGAGTGCTGGGATTAC  
 AGACATGCTCCATAANACATAGCTCCCAGAAGGATTTTTTAAAGAGATTTTGC  
 ATGTTTCAAAGTTGCCTTTGAGACTCAGAAATATTTTGATNTATTGAATGGCC  
 TTGCCACAGATGTGGGAGGCAGCTTGCTTGGTGGCCCAAGTATTTTTTTTTTG  
 TTCGTTTCAGAATTCTCCACATGAAGTTTTTACTGTTGGTTATCTGGCGTTGAA  
 GAAGGAATAGTGAAGGTACTTTTAAACAGTTTACACGTGGAAGGGGCTCAGGCA  
 CTAGGAACCAACCTTTTCCCGGAATATGAGGAAAATACATGAACAGTATTAGA  
 GTCACCTGAGGAAGTTACTAGGAAACGCCATAAGTCTCCAAGTACATTGTGAG  
 TCATTTTGAAGGACAATCGTGTATATAGACGAAATCTTCTACTCGTATGCTTT  
 TGAATCTTCTAGCAAGTTAGGTTTCTATGTTTGGGCTTCTTCCTATTGTCTAA  
 GAGTATGTGTGACAAATTCAACCTGACAAATACCTCAATGGCAAATTCTGACC  
 CTG (SEQ ID NO: ~~22~~)

MHLLLVQLLVLLPLGKADLCVDGCQSQGSLSFPLLERGRDLHVANHEEAEDK  
 PDLFVAVPHLMGTSLAGEGQRQRGKMLSRGFRWKKPETEFYPPRDVESDHVS  
 SGMQAVTQPADGRKVERSPLQEEAKRFWHRFMFRKGPAFQGVILPIKSHEVHW  
 ETCRTVPFNQTI AHEDCQKV VQNNLCFGKCSSIRFPGE GADAHSFCSHCSP  
 KFTTVHMLNCTSP TPVVKMVMQVEECQCMVKTERGEERLLLAGSQGSFIPGL  
 PASKTNP (SEQ ID NO: ~~22~~)

FIGURE 1

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# Construct

Gene: 67 GI Number(s): 6753409

Gene Family: Growth Factor Inhibitor

Gene Subfamily: Cerberus

Gene Sequence: full-length cDNA, Mouse

underlined = deleted in targeting construct

[ ] = sequence flanking Neo insert in targeting construct

[GGGGGGGGGGGGGGTCAGAGGGAGCTTTCTTTTAGGCCCGTCCATCTGTGAATCTAACC  
TCAGTTTCTGGGAATCAGGAAGCATGCATCTCCTCTTAGTTCAGCTGCTTGTCTCTTGC  
CTCTGGGAAGGCAGACCTATGTGTGGATGGCTGCCAGAGTCAGGGCTCTTTATCCTTTC  
CCTCCTAGAAAAGGGTTCGACAGAGATCTCCACGTGGCCAACCACGAGGAGGCAGAAGACAA  
]GCCGGATCTGTTGTGGCCGTGCCACACCTCATGGGCACCAGCCTGGCTGGGGAAGGCC  
AGAGGCAGAGAGGGAAGATGCTGTCCAGGCTTGGGAAGATTCTGGAAGAAACCTGAGACCG  
AATTTTACCCCCAAGGGATGTGGAAAGCGATCATGTCTCATCGGGGATGCAGGCCGTGA  
CTCAGCCACGACAGATGGGAGGAAAGTGGAGAGATCACCTCTACAGGAGGAAGCCAAGAGGT  
TCTGGCATCGGTTTCATGTTTCAGAAAGGGCCCGGCGTTCAGGGAGTCAT[CCTGCCCCATC  
AAAAGCCACGAAGTACACTGGGAGACCTGCAGGACTGTGCCCTTCAACCAG]ACCATTGC  
CCATGAAGACTGTCAAAAAGTCGTTGTCCAGAACAACTTTGCTTTGGCAAATGCAGTTC  
CATTCGTTTTCCTGGAGAAGGGGCAGATGCCACAGCTTCTGCTCCCACTGCTCGCCCCAC  
CAAATTCACCACCGTGCACCTTGATGCTGAACCTGCACAGCCCAACCCCGTGGTCAAGAT  
GGTGATGCAAGTAGAAGAGTGTGATGTCATGGTGAAGACGGAACGTGGAGAGGAGCGCCT  
CCTACTGGCTGGTTCCCAGGGTTCCCTTCATCCCTGGACTTCCAGCTTCAAAAACAAACCC  
ATGAATTACCTCAACAGAAAGCAAAACCTCAACAGAATAAGTGAGGGTTATTCAATCTGG  
AAATGTTATGTGAGTTATATAAAGATCAGTGGAAAATATCTTTCTCTCTCCCTCTCTCCC  
CCTCTCTCTCTCTCTATTTCT  
TCACACACACACACACACACACATGTTTGTGTTTAGACAGGGTCTTAT  
GTATTCTCAGCTGGCCTCAAACTCACAATGTGGCTGGGGATGATTTTAAACTCCTGATCC  
AATCCTGAGTGTGAGGATTACAGACATGCTCCATAANACATAGCTCCCAGAAGGATTTT  
TAAAAGAGATTTTGCATGTTTCAAAGTTGCCTTTGAGACTCAGAAATATTTTGATNTATT  
GAATGGCCTTGCCACAGATGTGGGAGGCAGCTTGCTTGGTGGCCCAAGTATTTTTTTTTT  
GTTTCGTTTCAAGATTCTCCACATGAAGTTTTTACTGTTGGTTATCTGGCGTTGAAGAAGGA  
ATAGTGAAGGTACTTTTAACAGTTTACACGTGGAAGGGGCTCAGGCACTAGGAACCAACC  
TTTTCCCGGAATATGAGGAAAATACATGAACAGTATTAGAGTCACTTGAGGAAGTTACTA  
GGAAACGCCATAAGTCTCCAAGTACATTGTGAGTCATTTGAAGGACAATCGTGTATATA  
GACGAAATCTTCTACTCGTATGCTTTTGAATCTTCTAGCAAGTTAGGTTTCTATGTTTGG  
GCTTCTTCTTATTGTCTAAGAGTATGTGTGACAAATTCAACCTGACAAATACCTCAATGG  
CAAATTCTGACCCTG

Gene Sequence  
Structure \*

241 bp

Sequence Deleted

528 bp

Size of full-length  
cDNA: 1752 bp



FIGURE 2A

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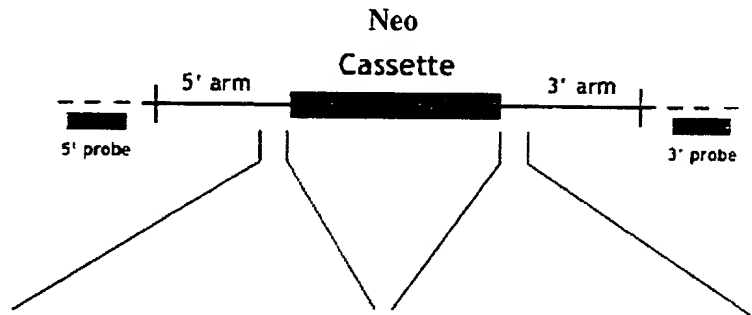
# Targeting Vector\* (genomic sequence)

Construct Number: 269

Arm Length:

5': 2 kb

3': 1.7 kb



———— Targeting Vector  
 - - - - Endogenous Locus

\* Not drawn to scale

5' >TCCATCTGTGAATCTAACCTC  
 AGTCTCTGGGAATCAGGAAGCATG  
 CATCTCCTCTTAGTTTCAGCTGCTT  
 GTTCTCTTGCCCTCTGGGGAAGGCA  
 GACCTATGTGTGGATGGCTGCCAG  
 AGTCAGGGCTCTTTATCCTTTCCT  
 CTCCCAGAAAGGGGTCGCAGAGAT  
 CTCCACGTGGCCAACCACGAGGAG  
 GCAGAAGACAA<3'  
 (SEQ ID NO: 13)  
 3

5' >CCTGCCCCATCAAAAGCCACGA  
 AGTACACTGGGAGACCTGCAGGAC  
 TGTGCCCTTCAACCAGGTATGCAT  
 TCTAGAGGGTAAACCACCAGTTTG  
 CCAGACAGGGAGGACAGCTGGACA  
 GCTAGGACAAACGGCAAAATAGAA  
 AGAGTCTGGCGAGAGCTCGGGCCT  
 TGTCTAGTTCCAGATTCAGTCCTT  
 TGGGTATTCAT<3'  
 (SEQ ID NO: 14)  
 4

FIGURE 2B



707290 2552880

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# Phenotypic Data Summary - Tail Suspension

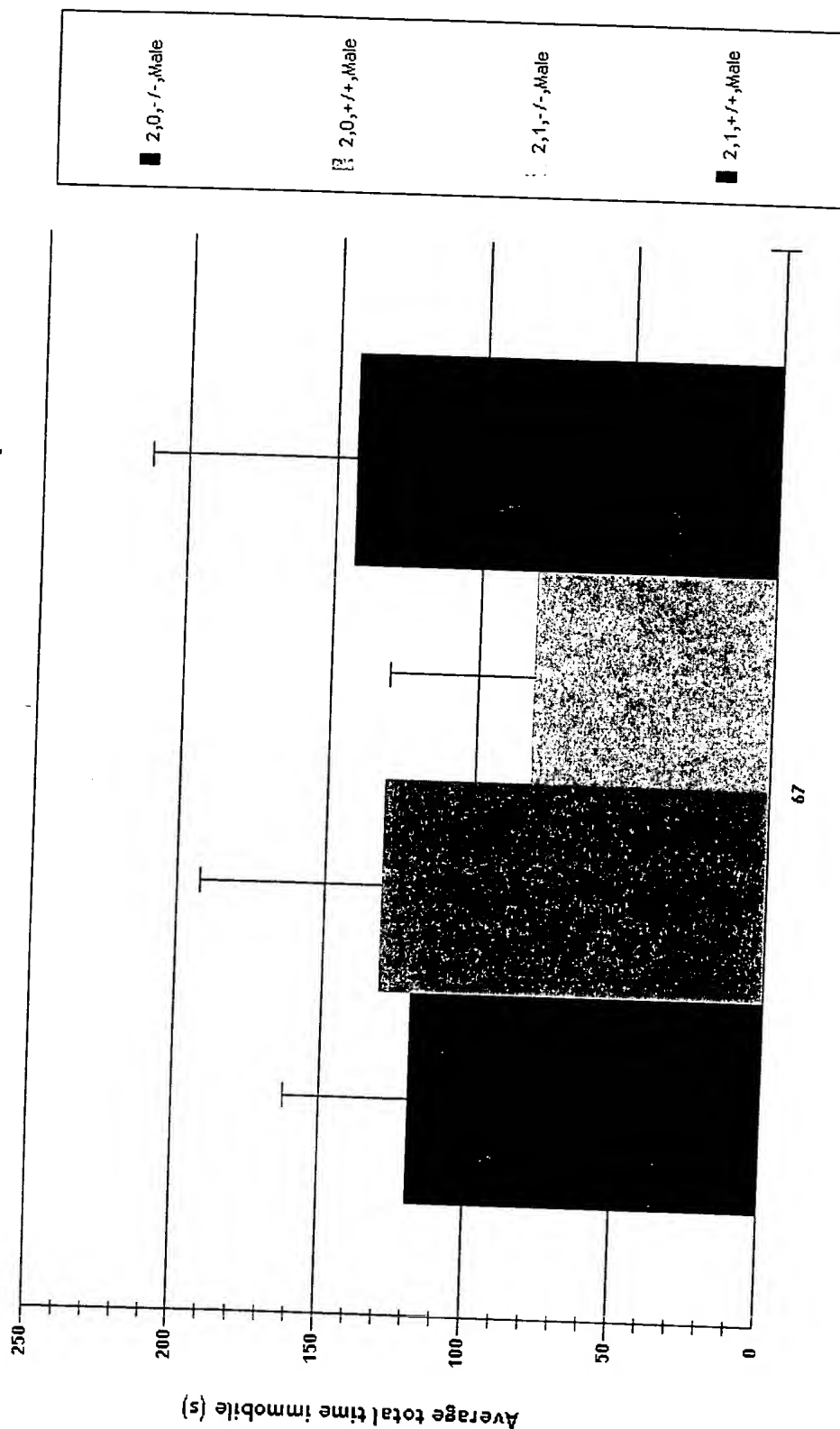


FIGURE 4